STATE OF MARYLAND

DHMH

Maryland Department of Health and Mental Hygiene
201 W. Preston Street, Baltimore, Maryland 21201

Martin O'Malley, Governor – Anthony G. Brown, Lt. Governor – John M. Colmers, Secretary

Office of Preparedness & Response
Isaac P. Ajit, M.D., M.P.H., Acting Deputy Director

August 17, 2007
Public Health & Emergency Preparedness Bulletin: # 2007:32
Reporting for the week ending 08/11/07 (MMWR Week #32)

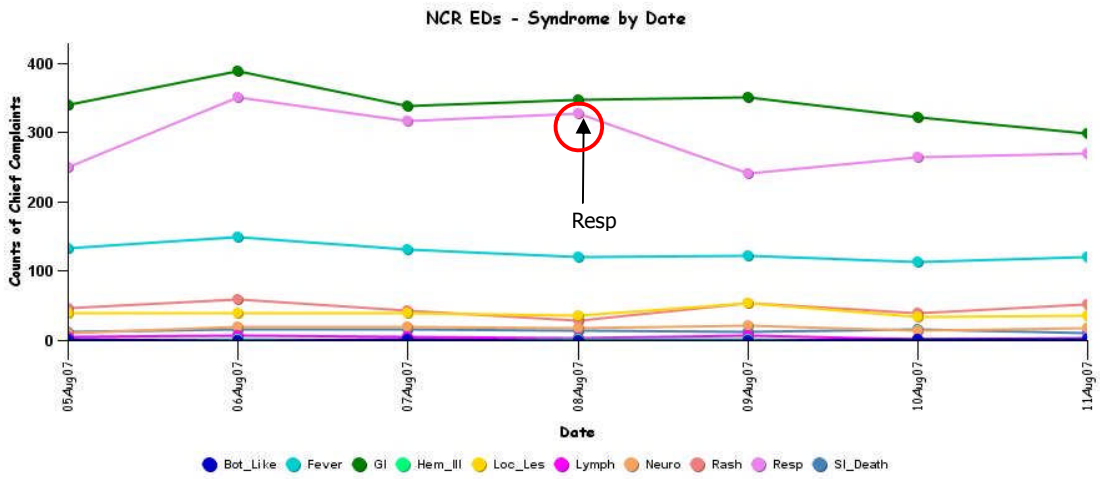
CURRENT HOMELAND SECURITY THREAT LEVELS

National: **Yellow (ELEVATED) *The threat level in the airline sector is Orange (HIGH)**
Maryland: **Yellow (ELEVATED)**

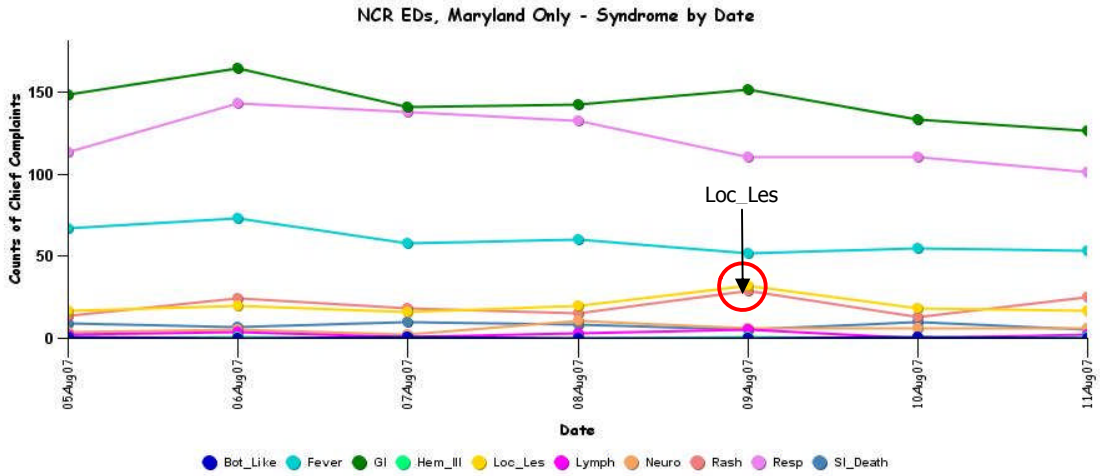
SYNDROMIC SURVEILLANCE REPORTS

ESSENCE (Electronic Surveillance System for the Early Notification of Community-base Epidemics):
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts only. Note: ESSENCE – ANCR Spring 2006 (v 1.3) now uses syndrome categories consistent with CDC definitions.

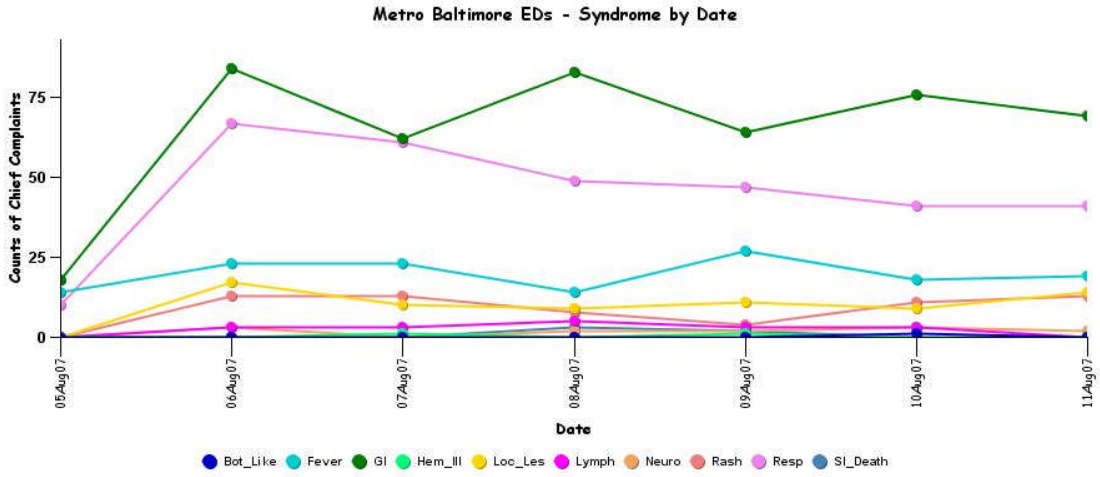
Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.



* Includes EDs in all jurisdictions in the NCR (MD, VA, DC) under surveillance in the ESSENCE system

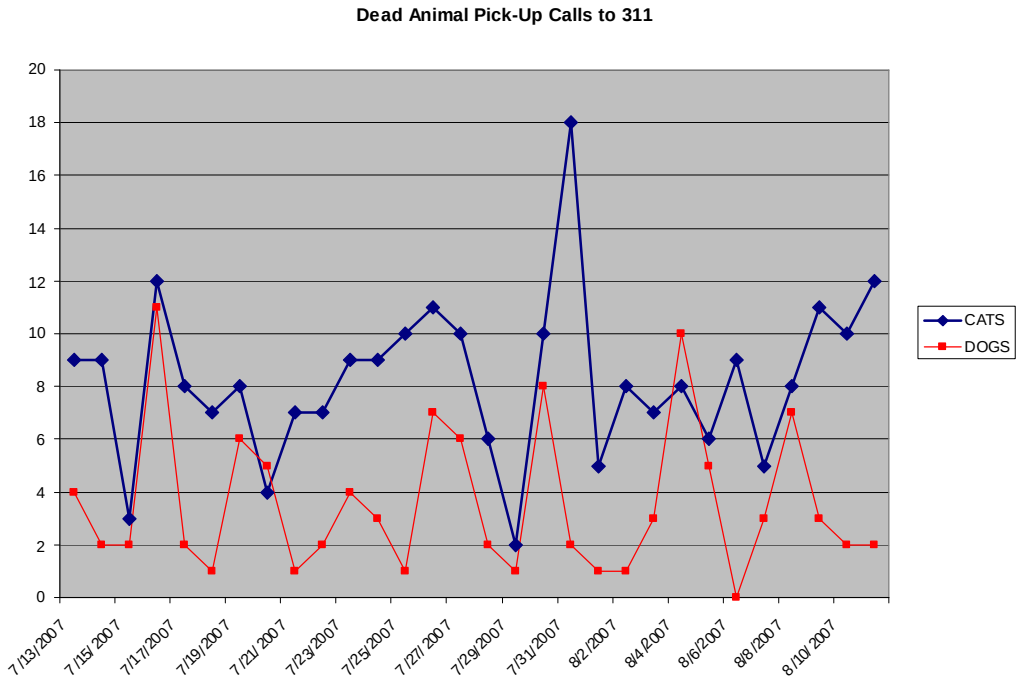


* Includes only Maryland EDs in the NCR (Prince George's and Montgomery Counties) under surveillance in the ESSENCE system



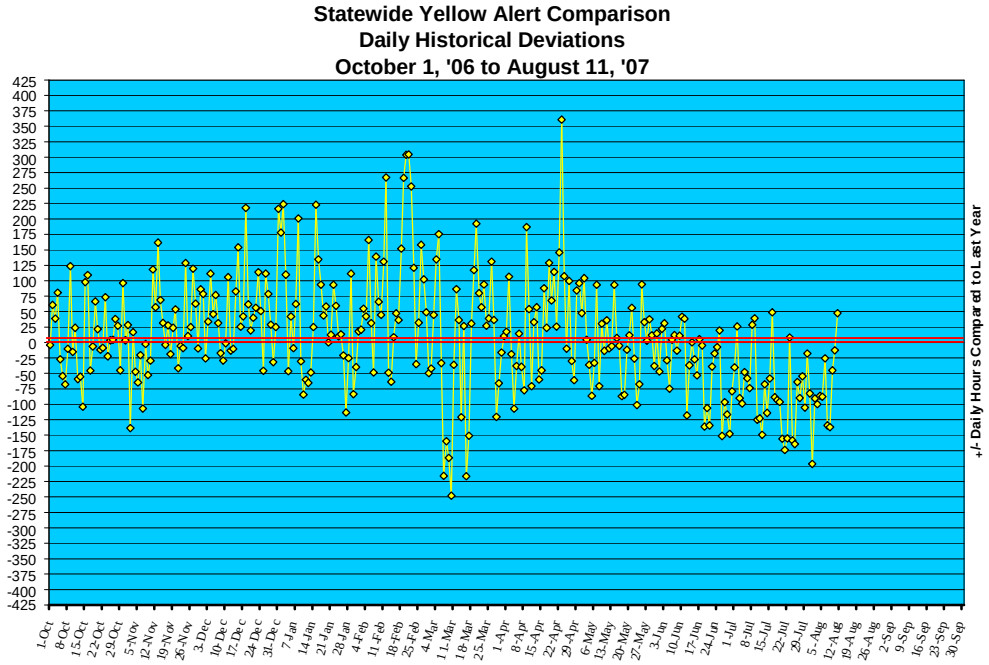
* Includes EDs in the Metro Baltimore region (Baltimore City and Baltimore County) under surveillance in the ESSENCE system.

BALTIMORE CITY SYNDROMIC SURVEILLANCE PROJECT: No suspicious patterns in the medic calls, ED Syndromic Surveillance and the animal carcass surveillance. Graphical representation is provided for animal carcass surveillance 311 data.



REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/06.



REVIEW OF MORTALITY REPORTS

OCME: OCME reports no suspicious deaths related to BT for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in July 2007 did not identify any cases of possible terrorism events.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	**Aseptic**	**Meningococcal**
New cases:	15	0
Prior week:	14	0
Week#32, 2006:	9	-

OUTBREAKS: 2 outbreaks were reported to DHMH during MMWR Week 32 (August 5-August 11, 2007):

1 Gastroenteritis outbreak
1 outbreak of GASTROENTERITIS associated with a Camping Event (Out of State)

1 Respiratory illness outbreak
1 outbreak of PNEUMONIA associated with a Nursing Home

MARYLAND SEASONAL FLU STATUS:

Seasonal Influenza reporting occurs October through May. No cases of influenza were reported to DHMH during MMWR Week 32 (August 5 – 11, 2007).

***Please note:** Influenza data reported to DHMH through the National Electronic Disease Surveillance System (NEDSS) is provisional and subject to further review.

PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO Pandemic Influenza Phase: Phase 3/4: No or very little human-to-human transmission/Small clusters with limited human-to-human transmission, suggesting that the virus is not well adapted to humans

US Pandemic Influenza Stage: Stage 0/1: New domestic animal outbreak in at-risk country/Suspected human outbreak overseas

*More information regarding WHO Pandemic Influenza Phase and US Pandemic Influenza Stage can be found at: http://bioterrorism.dhmh.state.md.us/flu.htm

WHO update: As of July 25, 2007, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 319, of which 192 have been fatal. Thus, the case fatality rate for human H5N1 is about 60%.

AVIAN INFLUENZA, HUMAN (Viet Nam): 7 Aug 2007, A Vietnamese student has died from the H5N1 strain of bird flu, the country's fourth victim of avian influenza this year, state media reported on Aug 7. The 15 year old victim's family had kept ducks at their home in Thanh Hoa province, south of the capital Hanoi. The death, which could not immediately be verified with government officials, would bring to 46 the number of people who have died of bird flu in Viet Nam since the killer virus broke out here in late 2003. Communist Viet Nam, once the nation worst hit by bird flu, contained earlier outbreaks through mass vaccination campaigns, the culling of millions of poultry, and public education initiatives. But the virus resurfaced strongly earlier this year, especially among waterfowl, hitting scores of poultry farms in an outbreak that

at its peak in May spread to 18 of Viet Nam's 64 provinces and municipalities. As of this week, only 3 provinces remained affected, and 160 million head of poultry had received bird flu shots in the year's first round of vaccinations which was ongoing or finished in all provinces, officials said. The World Health Organization (WHO) has yet to confirm the latest death in Viet Nam with laboratory tests.

NATIONAL DISEASE REPORTS:

TULAREMIA (Utah): 9 Aug 2007, CDC is now leading the environmental investigation into a tularemia cluster that may have afflicted as many as 17 Utahns, traced to the west side of Utah Lake. According to the Utah Department of Health, 8 cases have been confirmed and another 8 are classified as probable. From ongoing and future efforts, health experts hope to learn more about the actual ecology of the illness, how it dissipates, and the course of recovery. They also want to know what puts people at greater risk. Hundreds of people were in the area at the time of the cluster, but only a small number became ill or developed lesions, initially mistaken for a spider bite or staphylococcal infection, said Ilene Risk, director of the epidemiology bureau in the Salt Lake Valley Health Department. From Salt Lake County alone, where more than half those in the cluster reside, 200 people were potentially exposed. Local health officials are collecting data and interviewing people who were infected, hoping to get a clue as to what puts people at greatest risk. CDC is testing the field specimens collected as part of the investigation and will work with Brigham Young University to monitor flying insects in the area. During a field assessment, CDC and the Salt Lake Valley Health Department set up 14 flying insect traps, 26 rabbit traps, and 150 small rodent traps, then collected samples for lab analysis. The CDC will lead mitigation efforts, should it decide they're needed. Tularemia is a bacterial infection caused by Francisella tularensis, found in animals, particularly rabbits. It's typically transmitted by flea, deerfly, or horsefly bite, but can be spread by direct contact with an infected animal. It can be spread by drinking contaminated water or inhaling contaminated air, as well. It doesn't pass person to person. People made ill in the cluster were at the lake between mid-June and the 1st week of July 2007. Utah usually has a few cases statewide each year, but a cluster such as this one is unusual. (Tularemia is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

EASTERN EQUINE ENCEPHALITIS, EQUINE (Louisiana): 10 Aug 2007, Following more than 8 reports of eastern equine encephalitis (EEE) recently, agriculture and forestry commissioner Bob Odom is reminding horse owners to vaccinate their horses. Odom said EEE has been identified as the cause of death in 8 horses and suspected in 2 others in Lafourche Parish. "Since there is no cure for eastern equine encephalitis, I am urging horse owners to vaccinate their animals," Odom said. "This is a very preventable disease, but often horse owners wait until it's too late." Odom stressed the significance of reporting and testing suspected horses. "This is a public health concern and we are asking all horse owners to make sure their animals have up-to-date vaccinations and to consult a veterinarian if their horses are displaying any symptoms." It's crucial because that information is passed quickly on to other health officials," he said. "With the public health concern over eastern equine encephalitis and other mosquito borne illnesses, our animal health officials are an important link to the state and nationwide reporting systems." Dr Henry Moreau, state veterinarian, said eastern equine encephalitis has a mortality rate of 90 per cent. The disease causes encephalitis, or swelling of the brain, in both horses and humans, but cannot be transmitted directly from horses or humans to other horses and humans. The virus is transmitted by mosquitoes in 2 ways, either from bird to bird or from bird to mammal. (Viral encephalitis is listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

INTERNATIONAL DISEASE REPORTS:

BRUCELLOSIS, HUMAN (China): 6 Aug 2007, The Center for Health Protection has confirmed brucellosis infection in a 56 year old Tsuen Wan man and his wife. The man developed fever, headache, malaise, and urinary symptoms in May 2007. He was admitted to Yan Chai Hospital twice between May 31 and Jun15 and is now in a stable condition. His 54 year old wife developed similar symptoms and was admitted to Yan Chai Hospital on Jul 13. She was discharged on Jul 18. The two traveled to Guangzhou for 2 days in April 2007. Their family members have no symptoms. A total of 3 brucellosis cases were reported in 2006 and 1 in 2005. Brucellosis is considered to be a Category B bioterrorism agent which is, in nature, acquired as a zoonotic infection by humans. Its manifestations are protean; including undulant fever, with positive blood and/or bone marrow cultures, and it is a cause of localized disease in many organ systems including skeletal, urinary tract, central nervous system, liver, cardiac and lung. (Brucellosis is listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

FOODBORNE ILLNESS, RACE TRACK (Hungary): 6 Aug 2007, National medical chief officer Ferenc Falus has launched an inquiry after 15 people were hospitalized after eating food provided by a buffet at the Hungaroring race track during yesterday's Formula One race. A total of 14 adults and a child were rushed to hospital, but none was in a serious condition and most were foreigners. The foreigners were taken to Szent Laszlo Hospital from Budapest hotels, not straight from the race track. The sale of food by those suspected of disseminating the epidemic was subsequently suspended. (Food Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

PLAGUE, HUMAN, FATAL (Mongolia): 7 Aug 2007, A 14 year old has died of plague in Tsetserleg County of Mongolia's Hovsgol Province. On Aug 2, the child went for treatment at the county hospital due to fever and died that

night. Sources say that the deceased contracted plague through contact with a dog on Jul 31. The Hovsgol Province Infection Prevention and Control Center sent a work team to the area. The area has been closed and 27 individuals with primary contact and 52 with secondary contact have been isolated for observation. Up to now none has developed fever. Mongolia is a high plague incidence region and plague has occurred in almost all provinces. To prevent plague, the Mongolian Government has issued prohibitions on marmot hunting. But illicit hunting incidents still occur despite repeated prohibitions. (Plague is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

CHOLERA (Comoros Islands): 7 Aug 2007, An outbreak of cholera has killed 8 people and infected scores of others on the Comoros Islands since July 2007, a senior doctor said, blaming the food at traditional wedding parties for spreading the disease. The epidemic on Grande Comoros, the largest of the 3 islands in the Indian Ocean archipelago, coincided with the holiday months when villagers prepare feasts for weddings. "The cholera epidemic has killed 5 in August 2007 and 3 in July 2007," Abdoulbar Youssouf, the director general of El-Marouf hospital, the Comoros' largest, said. He added that in at least one outbreak over the weekend, nearly 50 people were infected at a wedding party, probably through dirty drinking water or salads. Grande Comoros is known for its extravagant weddings, where many spend their life's savings on gold, gifts, and feasts. Mohamed Moundhiri Djoubeiri, the doctor in charge of the cholera ward at El-Marouf, said traditional feasts were to blame for spreading it. "The government should ban big dinners during the epidemic periods," he said. (Water Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

CHIKUNGUNYA (India): 7 Aug 2007, Chikungunya, a fever that causes intense joint ache, has struck Calcutta after 44 years. The usually non-fatal viral disease, caused by mosquito bites, was detected in North 24-Parganas last October. Now the virus has been found in 3 of 5 blood samples collected from central Calcutta and Beliaghata. Health department sources said that 31 samples, collected from Calcutta and Habra in North 24-Parganas, had been sent to the Indian Council of Medical Research (ICMR), Calcutta, for the chikungunya test. "Altogether 26 samples, including 3 from Calcutta, tested positive," an official said on Aug 6. Mayor Bikash Ranjan Bhattacharyya said the information hadn't reached him. Chikungunya, spread by the bites of the Aedes aegypti mosquito, was detected in 15-odd villages in North 24-Parganas' Baduria and Swarupnagar last year. This year, some 500 people in Habra's wards 13 and 16 and their neighborhoods have been showing the symptoms for over a month. But none needed to be admitted to hospital. Other than joint pain, headache, and fever, patients often develop rashes on their limbs. Young adults usually take 5 to 15 days to recover while the elderly can take months. Only rarely do people die. But when chikungunya had struck Calcutta in 1963, some 200 people are said to have died. Tens of thousands were taken ill and many of the cases were hemorrhagic, the ICMR Journal's May 1980 issue says. "Usually, chikungunya doesn't kill," an expert said. "Those deaths may have been caused by an accompanying infection by, say, the dengue virus." There is no vaccine or specific treatment, but the anti-malaria drug chloroquine has been known to provide relief. The state has procured ELISA kits that can confirm chikungunya infection in 2 days. The precautions are the same as those for malaria, aimed at avoiding mosquito bites. In North 24-Parganas' affected areas, Red Cross teams have begun a drive to destroy mosquito larvae, and people have been asked to prevent accumulation of fresh water. (Emerging Infectious Diseases are listed in Category C on the CDC list of Critical Biological Agents) *Non-suspect case

E. COLI O157, NURSERY SCHOOL (Japan): 7 Aug 2007, A 3 year old girl infected with the O157 strain of Escherichia coli died on Aug 6, the city government of Osaka said. Four other children between the ages of 10 months and 5 years who attended the same nursery school were also infected: 2 are still receiving hospital treatment, while the other 2 are recuperating at home. The girl was hospitalized on Jul 29 with severe stomach pains and diarrhea. The hospital reported to the city on Aug 1 that O157 had been detected in a stool sample. Officials said the girl died of multiple organ failure and brain damage. Officials said they suspect all 5 were fed the same food at the school, but they are also investigating whether the source of infection was from outside the school. A total of 31 infants and pupils up to age 7 attend the Popora Osaka Tenrokuen nursery center. The center issued a warning about secondary infection through human contact. It advised staff at nursery schools and facilities for senior citizens to be thorough when washing hands and using disinfectant after changing diapers and before eating. (Food Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

ANTHRAX, LIVESTOCK (Canada): 8 Aug 2007, An outbreak of anthrax has killed 49 cows in Manitoba's Interlake region, the Canadian Food Inspection Agency (CFIA) confirmed on Aug 7. A total of 2 goats and a horse also died as a result of ingesting infected spores that were unearthed with heavy rainfall. Test results confirming that the deaths were from anthrax came back over the weekend. The CFIA was first notified of the outbreak on Jul 20 when a farm in the Armstrong community in the region reported that cattle had died. A total of 9 more farms in Armstrong and 4 farms in the neighboring Rockwood community reported losses soon after. The last death was on Aug 3. Infected spores, remnants of bison, cattle and other animals that graze, are commonly found throughout all the Prairie Provinces. Manitoba has had an outbreak almost every year since the year 2000. Stephens said that could be due to its widely varying environmental conditions, from heavy downpours to hot and dry periods, all potentially causing the spores to surface. According to Manitoba Agriculture, Food and Rural Initiatives, vaccinating cattle isn't necessarily cost effective. "An appropriate vaccination for anthrax is available for cattle but it is generally not cost-effective because of the sporadic nature of the disease from year to year," the government agency says on its website. "Vaccination is only advised in those herds where there has been a recent history of anthrax in the immediate area where the cattle are raised." (Anthrax is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

CRIMEAN-CONGO HEMORRHAGIC FEVER (Russia): 8 Aug 2007, As of Aug 6, 224 cases of Crimean-Congo hemorrhagic fever (CCHF), including 5 child cases, have been registered in 8 regions of the Southern Federal District (Okrug) of Russia, compared with 191 cases, including 4 children, that were registered during the same period of 2006. 63 cases have been registered in the Republic of Kalmykia (65 in 2006), 53 in the Rostov region (52 in 2006), 58 cases in the Stavropol region (40 in 2006), 28 cases in the Volgograd region (16 in 2006), 19 in the Astrakhan region (15 in 2006), one in the Republic of Karachaevo-Cherkessia (none in 2006), one in the Republic of Ingushetia (none in 2006), and one in the Republic of Dagestan (3 in 2006). The situation in the Stavropol, Volgograd and Astrakhan regions remains unsatisfactory, where levels of morbidity are 1.5 times or more than those observed in the preceding year. Insufficient expenditure on measures to control exposure of cattle and other livestock to tick infestation in natural foci of CCHF infection has contributed to expansion of CCHF infection in several regions of the Southern Federal Region (Okrug). (Viral hemorrhagic fevers are listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

Q FEVER (Netherlands): 9 Aug 2007, On May 29, a general practitioner (GP) from a rural village in the province of Noord-Brabant, in the south of the Netherlands, alerted the municipal health service about an unusual increase in pneumonia cases among adults in his practice. Cases presented with one or more of the following symptoms: fever, night sweating, muscle pain, cough, and fatigue. A second GP from a nearby village reported a similar alert soon thereafter and this led to a further investigation of the cases. Earlier in May, the same municipal health service received an alert by a regional medical microbiologist regarding an increase in severe pneumonias that did not respond well to antibiotics. This first cluster of cases was initially attributed to Mycoplasma pneumoniae, but more in-depth diagnostics revealed that the majority of these patients had a positive serology for acute Coxiella burnetii infection. Also, 6 sporadic Q fever cases were reported from the same province through the mandatory notification system from January to April 2007. An investigation was launched to describe the outbreak, find the source and route of transmission, identify symptomatic and asymptomatic pregnant patients who are more likely to contract chronic Q fever in the most affected area, and investigate possible links to animal reservoirs in the region in order to decide on appropriate control measures. In the Netherlands, 5-20 cases of Q fever have been reported annually between 2000 and 2006. From Jan 1 until Aug 2 2007, 63 confirmed and probable cases with Q fever have been reported to the municipal health services throughout the Netherlands; 59 of them were in the provinces of Noord Brabant and Gelderland. This is the first documented outbreak of Q fever in the Netherlands, and it is currently under investigation. So far, only sporadic cases and family clusters related to direct animal contact had been observed here. It is also an example of local GPs signaling an outbreak in the Netherlands, underlining their role in early warning of outbreaks, before laboratory-confirmed cases are reported to the health services. Further studies are planned. (Q fever is listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

TULAREMIA, VOLE RESERVOIR (Spain): 11 Aug 2007, Voles have spread tularemia to nearly 100 people and threatened Spain's food crops in northern areas. This has prompted the authorities to approve burning fields to destroy the pests. There are about 70 varieties of voles around the world and usually the small rodents are not so destructive. But 750 million voles have invaded fields in Spain's north chomping their way through crops that include potatoes, beets, barley, lettuce, and vineyards. The increase in disease and destruction of crops on 988,000 acres infested by the pests has led authorities to approve burning the voles. That was after authorities had tried and failed to eliminate the rodents by destroying their burrows and using poison and small controlled burns. Although authorities say that only about 88 people have the disease, farmers dispute those figures and say more than 100 have become sick, Spain's daily El Pais reported. Authorities have torched a vole-infested area in the Valladolid area of Castile-Leon region in an effort to protect the potato and beet crop there. Officials will also soon set fire to fields in Avila, Palencia, and Segovia in an effort to kill the voles there. No one, including Castile-Leon's agriculture minister, Silvia Clemente, has an answer for why there are so many voles this year. (Tularemia is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

*Cases and outbreaks will be cited for suspect level with regards to suspicion of BT threat. Therefore, cases and outbreaks will be categorized as "Determined BT", "Suspect" or "Non-suspect".

OTHER RESOURCES AND ARTICLES OF INTEREST:

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: http://bioterrorism.dhmh.state.md.us/

Nonpharmaceutical interventions implemented by US cities during the 1918-1919 influenza pandemic (Use the link below to access the abstract of this article, published in JAMA Vol. 298 No. 6, August 8, 2007)
http://jama.ama-assn.org/cgi/content/abstract/298/6/644?lookupType=volpage&vol=298&fp=644&view=short
An analysis of historical records in 43 US cities indicates a strong association between early implementation of nonpharmaceutical interventions and mitigating the consequences of the 1918-1919 influenza pandemic in the US.

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NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every

activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information is a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

Questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

Heather N. Brown, MPH
Epidemiologist
Office of Preparedness and Response
Maryland Department of Health & Mental Hygiene
201 W. Preston Street, 3rd Floor
Baltimore, MD 21201
Office: 410-767-6745
Fax: 410-333-5000
Email: HBrown@dhmh.state.md.us